

# MasterPozzolith<sup>®</sup> RMC 4

## High performance retarding plasticiser for concrete

### DESCRIPTION

**MasterPozzolith RMC 4** is a high-performance plasticising retarder, beneficial in maintaining workability especially in high ambient temperatures.

### TYPICAL APPLICATIONS

- Of particular value for readymixed concrete where high workability retention and retardation are of prime importance.
- Hot weather concreting of all types.
- Reduction in permeability, reducing effect of groundwater salts on concrete and steel.
- To improve cohesion, workability and compactability in concretes using poorly graded/shaped fine aggregates.

In hot weather concreting where delays to initial and final set are important and where maximum slump retention is of concern - such as site batched, pre-cast, and readymixed concretes.

### ADVANTAGES

- Considerably improves the cohesion of concrete, reducing segregation and bleed water
- Of particular use where fine aggregates of poor grading and particle shape are evident
- Reduces placing problems in hot weather by improved workability and workability retention in conjunction with extended setting times.
- Improved surface finish
- Improved trowellability
- Reduces honeycombing / cold joint effects.
- Improves pumpability of concrete
- Reduces effects of various modes of attack on concrete and embedded steel by considerable reduction in permeability

### PACKAGING

**MasterPozzolith RMC 4** is available in bulk or in 210 L drums.

### STANDARDS

EN 934-2 Tables 2 and 10  
ASTM C-494: Types A, B and D  
BS 5075: Part 1 (superseded by EN 934-2)

### TYPICAL PROPERTIES\*

Colour	Dark brown liquid
Specific gravity @ 25°C	1.175 – 1.200
pH value	5.0 – 7.0
Chloride content	“chloride free” to EN 934
Freezing point	0°C

### APPLICATION GUIDELINES

Optimum performance is achieved when the admixture is added to the mixing water. Never add **MasterPozzolith RMC 4** to the dry cement. No extension to normal mixing time is necessary.

Trials should be conducted to determine the optimum addition rates of **MasterPozzolith RMC 4**, depending on mix design proposed and mix performance requirements. As a general guide to these trials, a dosage range of 200 ml to 560 ml per 100 kg cement is recommended as a starting point. Depending on the desired properties, a dosage of up to 1000 ml per 100 kg of cement can be used.

#### Effects of over dosage

A severe over-dosage of **MasterPozzolith RMC 4** will result in the following:

- Retardation of initial and final set.
- Slight increase in air entrainment.
- Increase in workability.

Providing it is properly cured, the ultimate strength of the concrete will not be adversely affected and will generally be higher than for normal concrete. The retarding effects of very high dosages will be exaggerated with SR cement.

# MasterPozzolith® RMC 4

## Specification clause

**MasterPozzolith RMC 4**, a retarding and plasticising concrete admixture manufactured by Master Builders Solutions, or similar approved, to the following specification:

**MasterPozzolith RMC 4** is to be used in all concrete (indicate) at a dosage range of 200 ml to 560 ml per 100 kg of cement in accordance with the manufacturer's instructions.

Specific gravity  $1.178 \pm 0.005$

Complying to specification type:

ASTM C-494 Types B and D or BS 5075 Part 1.

Composition: High molecular weight refined lignosulphonates and synthetic retarders.

## MIXING

**MasterPozzolith RMC 4** can be used with all types of Portland cement including Sulphate Resisting. For use with other special cements, contact Master Builders Solutions Technical Services Department.

**MasterPozzolith RMC 4** should not be pre-mixed with other admixtures. If other admixtures are to be used in concrete containing

**MasterPozzolith RMC 4**, they must be dispensed separately.

## Dispensing

**MasterPozzolith RMC 4** should be dispensed through a proprietary dispenser, such as is available from Master Builders Solutions.

## Setting times

**MasterPozzolith RMC 4** acts efficiently to give controlled retardation of initial set. Setting times of concrete mixes are related to cement type and ambient temperatures.

## Action

**MasterPozzolith RMC 4** acts efficiently on cement particles by combining the effects of a powerful plasticising / deflocculating agent and retarder.

## STORAGE AND SHELF LIFE

Store under cover, out of direct sunlight and protect from extremes of temperature. Shelf life is up to 2 years when stored as above. Failure to comply with the recommended storage conditions may result in premature deterioration of the product or packaging. For specific storage advice consult Master Builders Solutions Technical Services Department.

## HEALTH AND SAFETY

**MasterPozzolith RMC 4** is not a fire or health hazard. Spillages should be washed down immediately with cold water. For further information refer to the material safety data sheet. Field service, where provided, does not constitute supervisory responsibility. For additional information contact your local Master Builders Solutions representative.

## QUALITY AND CARE

All products originating from Master Builders Solutions Dubai, UAE facility are manufactured under a management system independently certified to conform to the requirements of the quality, environmental and occupational health & safety standards ISO 9001 and ISO 14001.

\* Properties listed are based on laboratory controlled tests.

© = Registered trademark of the MBCC Group in many countries.

MBS\_CC-UAE/PI\_RMC 4\_06\_94/v1/11\_13/v2/11\_19

## STATEMENT OF RESPONSIBILITY

The technical information and application advice given in this Master Builders Solutions publication are based on the present state of our best scientific and practical knowledge. As the information herein is of a general nature, no assumption can be made as to a product's suitability for a particular use or application and no warranty as to its accuracy, reliability or completeness either expressed or implied is given other than those required by law. The user is responsible for checking the suitability of products for their intended use.

## NOTE

Field service where provided does not constitute supervisory responsibility. Suggestions made by Master Builders Solutions either orally or in writing may be followed, modified or rejected by the owner, engineer or contractor since they, and not Master Builders Solutions, are responsible for carrying out procedures appropriate to a specific application.

